

Transcript for eGames for Health

Part I

But more generally, games for health just implies any kind of connection – any kind of interrelationship - between videogames and health care topics or health problems. So it's worth kind of reviewing why we would care about videogames in the first place. And here's some data, and these are actually even now slightly old. But a lot of people still consider videogames to be a kind of a kids' thing. Kids play games and we didn't have to worry about that, and it's just really not true any more, if it ever was true. From the beginning, I spent a lot of time looking at the history of videogames and certainly the origins of videogames in the arcades and bars and lounges and stuff in the 70s – they were never really just a kids' thing: They evolved out of pinball and of lounge games and so forth. But now today, we see that gamers have an average age of about 30. Supposedly 19 or 20 percent are over 50, and they're playing different kinds of games. But they're optic, so there are different kinds of targets we can reach. The idea that games are an entirely male phenomenon – only guys play games, only boys play games – is equally problematic. We see about not quite half-and-half, roughly 55 percent male 45 percent female players. The market – the videogame market – is not actually that big. We like to talk about how big it is, 7 billion dollars in 2004. It's actually fallen off a little bit in 2005 in anticipation of some new technology coming out this year. Seven billion dollars is a lot of money, but it's like some ridiculous fraction of real large industries in the health care world. Anyway, that's more than the box office film take which is usually the comparison that people make, although Hollywood makes a ton more money on home video and DVD sales and so forth. There are a couple – and I'll come back to these – there are a couple of very hyped, very popular topics in this intersection between games and health, and I want to put them out there right up front: one of them just has to do with increasing interest, increasing kind of engagement with health issues. That could mean health issues themselves or the health profession as a career option – and this concept of health messaging. Taking videogames and looking at them as a medium commensurate with TV, with film, in which there's been a long history of trying to influence the creators of these products – these mass market cultural products – and consider how they're representing health. And we'll come back to those.

So what are some of the things that people are thinking about as they try to put games and health care together? This is not exhaustive by any means: these are just some ideas. Putting a patient in the loop and putting the patient in control, and an example: this comes out of the virtual reality medical center which has been using games for post-traumatic stress disorder treatment for a while out of San Diego. So you can actually get the player, get the patient sort of inside them and experience that they have control over and they can understand and master in a way that maybe you couldn't do with other kind of clinical treatments. So here you see games actually being used clinically in some sense. Being used for health treatment.

New methods of teaching that aren't just lecture hall style teaching, and this could mean either health awareness in a public sense or a primary or secondary educational setting, or

even in a medical school setting. Butch Rothsra (sp?) at Beth Israel has been using games as sort of practice techniques for laparoscopic surgery – not so much to teach you how to do the surgery as to sort of refine and hone the physical techniques that are required

The idea of games providing a window onto the way that health care works, or rather the way that well-being works. And you can kind of gain insights into health decisions that you might make as an individual through playing games which then hopefully would change your perspective on the way that you live, the decisions you make. And then of course the idea that the games themselves are producing some kind of health outcome. So you're playing the game either as a clinical practice as in the case of the virtual reality example or more generally that a game is providing some sort of data management.

Debra Lieberman out of UC Santa Barbara spent a number of years in the 1990s working on games for kids to manage asthma and diabetes, for example, and these cases the games themselves were really just sort of a skins or facilities for getting these kids to manage their conditions, but in playing them and in measuring them and the way they played them, she was able to determine that they were actually more effectively managing their conditions when they were using these tools to get at them rather than just analog standard tools.

Speaking of Lieberman, I wanted to share a model that she's come up with which is interesting – not necessarily that we need to adopt it – but it's interesting to see the way that people have mapped the potential uses of games for health care. And these are just four topics that she's argued are especially useful in the intersection of games and health.

The idea of enhancing self-concepts. So we have a game character as a role model in some sense. A game character with diabetes or a game character with asthma might be an interesting role model not just for kids with this condition but also as a kind of empathetic tool for people who don't necessarily have these conditions. When you see them in videogames, which you just don't – you don't buy a game off the shelf these days and “Oh, my character has diabetes,” and now I have to deal with that . . . They can create empathy and enhance the self-concept of the player patient.

Self-efficacy: What she means by this is the idea that if I can master some very abstracted, simplified version of what I have to actually do in the world, inside of a game, then it gives you a sense of empowerment. Like okay, well, I kind of know how this works – I understand that the model in the game is incomplete or simplified, then now I've got a sense of where to start – this notion of I can do this; I've got a behavior that I can actually take part in.

Knowledge and skills, and this is really just the standard expectation that videogames like many other media might be potentially educational, and we can present information in them that people would learn from and somehow that knowledge would transfer and they would know it after they leave the game. This is still a controversial topic in and out of the videogame world, but it's something that obviously we could think of applying to

games for health: Here is information about dieting, and you play that in a game, and you could potentially measure whether people take that for granted outside the game.

Communication and social support: Not all games – but many games – are tremendously social. World of Warcraft, which was brought up earlier, is an online game. Tens of thousands of people at a time play this game, and you're talking with other people – other real people in the world, and this actually can be quite positive, especially when you're able to connect and network. People might not be able to meet – either those who are suffering from some condition or just that want to talk about things. I remember the first time I went into a virtual world called There back in 2002 or 2003, one of the first things I found were there were these little virtual support groups: people who wanted to talk about diet and health issues.

Lieberman continues to give us some warnings as we think about using these tools for health care. And these are some of the arguments she makes: We need to design games that encourage better behavior, not just better knowledge. This is a common problem of course in education of all kinds. If we present information and people sort of stare at for several hours, and we look at all the time people are playing videogames – people are spending time playing videogames – it doesn't automatically mean it's meaningful time. And a lot of this has to do with – and this is me riffing off of Lieberman now – there are a lot of crappy games. There are a lot of crappy games for health too. The videogame industry – and videogames is a serious business – and there are techniques and styles and you can't sort of drop in and think “oh, I'm going to make a game.”

Leverage what we already know from learning and communication theory. You guys actually know a lot more than I do in many cases. I'm the sort of philosopher/literary critic in the room. I'm interested in creating meaning and sort of conversations. And the idea that there are learning principles in the world that you already know about and that we can apply directly to game design. This is an important point to remember

Research; and I know that a lot of you are here, sort of “this is work . . . how do you know?” The jury's really still out in this: a lot of this has to do with what are we looking for. We need a lot of research evidence to justify videogames for health or for any of these topics that don't just have to do just with how many dollars you make selling them. And certainly the health care community has higher standards for games vs. other products and a lot of that's just because it's unproven . So something that actually might work in a textbook form and does just as well in a videogame: that's not necessary enough. We need to show that it makes sense to spend the extra time, the extra money, the extra political and bureaucratic arguments to even move forward with videogames. And finally there's the concept of stealth learning, which isn't unique to videogames – it's been around for a while – and that Deborah and I actually agree with her strongly here. This is ridiculous. We don't to sort of want to hide health content inside of games – and sneak it into schools, or sneak it into commercial games. This is a just a topic in the world we should be able to talk about it. We just have to find a way to talk about it meaningfully and represent it meaningfully here.

Some introductory points about the ways that some researchers are casting this net of games for health and the problems that are coming up.

I want to spend some time talking about commercial games because commercial games are the ones making that \$7.3 billion and games for health are not. So we should probably consider what they're doing right and what we can learn from them. It's worth thinking about the fact that health has been in games since the beginning, it's just that it's really, really, really abstract. So we've always had lives, like you have three lives when you start Pac Man. There's health meters, little bars, and when they deplete then you die and you've lost a life. There are health packs. Even games like Doom – the first-person shooter games – these health packs. What does health mean? It means running over them, and then you increase your health somehow – little boxes on the ground. There are healers, healer characters in role-playing games. And the healers usually enact magic. And there's this sort of magical particle spell that goes around them and then all of a sudden you're better. Poisons or other kinds of, you know, you fall into the toxic fume bin and your health decreases and you've got to get out.

Powerups, even this idea that Game Over – the way that we frame the game, the way we've always framed games from arcade games forward – has been in terms of dying in some way. Health's everywhere in games. It's just everywhere. It's just that the amount of detail and the amount of attention we're paying to it is pretty low. You deplete your health, and your game is over, and in many games, depleting your health means running into something. Pac man runs into a ghost and that's it: Game over. The last bullet on this slide: Is this a representation of the way that we actually feel about health in the real world? Is this maybe not an accident? We don't really know how health works: it's like this sort of voodoo that no one has any sense of how to manage. Preventative treatment sounds good, but how do we get into it? And really it comes down to maybe there is some sense in which health is a kind binary opposition in popular consciousness. I'm either healthy or I'm well – I go to the doctor: I don't know what they tell me, and they charge me. So we can look at this problem as both kind of exacerbated by commercial games in their lack or failure to really dig into health, but also that this is part of an expression of the way that we feel about health and health care in contemporary society.